AVS

Asset Assessment Report

Athabasca Healthcare Centre B0985A

Details	Values
Asset ID	B0985A
Asset Name	Athabasca Healthcare Centre
Location	Athabasca
Address	3100 - 48 Avenue
Verification Audit Maintenance Costs	$11,227,022.00
Replacement Cost	$64,532,160.00
Gross Area (All Sections)	8,730
Measurement Unit	Sq. M.
Construction Year (Original Section A)	0
Verification Audit Date	8/24/2011
Verification Prime Audit Firm	Facility Maintenance & Engineering
Verification Auditor Name	David Ponich
Verification Audit Replacement Costs	$64,532,160.00
Verification Audit Mech Sub-consultant	
Verification Audit Elect Sub-consultant	
Verification Specialist Sub-consultant	
Historical Designation	None
Verification Auditor Phone Number	
Verification Audit FCR	17.4%

Narratives

General Summary

The Athabasca Healthcare Centre opened on April 3rd, 1984 and is based on the "prototypical design" used in the Province during the mid 1980s. The 8370 square meter building has a single storey main chassis with full basement level and three single storey wings attached. Above the main chassis is a mechanical room penthouse. The central area (main chassis) consists of the main entrance, admitting desk, emergency department, occupational and physical therapy department, lab, xray, operating suite and ambulance bay. The southern section is the Long Term Care wing. The eastern section is the Acute Care wing and the northern section is used primarily for offices and physician's clinic. The basement area supports the service sector with a full kitchen, laundry, medical supply storage, mechanical room, maintenance shop, housekeeping office, central sterilization & supply and loading dock. Generally the facility is in good condition.

Structural Summary

The building structure consists of a structural slab on grade with concrete pile foundations, steel columns and girders are utilized for the super structure. The basement consists of concrete walls on spread footings. A structural concrete slab is utilized over the basement area; the roof is supported by steel joist with steel pan deck. Interior concrete bearing walls are utilized in the basement area and at the ambulance bay, mechanical, storage and staff rooms. Non load bearing steel stud walls are utilized as backer walls for the brick exterior cladding. The structure is generally in good condition.

Envelope Summary

The exterior facade consist of brick for all sides. The penthouse has metal siding.

The windows are commercial grade sealed window units in anodized pre-finished aluminum frames. The roofs are all built-up tar and gravel and appear to be original. The building envelope is generally in acceptable condition.

Interior Summary

The interior finishes for the flooring area is mostly vinyl, the majority of the main chassis was replaced with the renovation and relocation of the emergency area in 2000. Flooring in the lower level is epoxy. Mechanical area is painted concrete. Carpet is used in offices and cafeteria. The interior walls are painted gypsum board or painted concrete block. The ceilings are suspended T-bar (metric grid) in the non-renovated areas. Ceiling at front waiting area is metal paraline. Ceilings are open in mechanical, loading dock area and storage areas. The building interior is generally in good condition.

Electrical Summary

The main electrical service at the Athabasca Healthcare Centre is a 2500 amp, 347/600 volt, 3 phase, 4 wire service to the main distribution in the electrical room located in the lower level. There are multiple sub distribution panels, step down transformers and branch circuit panels located though out the building. Motor Control Centers are located in the boiler room and penthouse mechanical room. Emergency power is supplied by a 500 KW generator through a 1000 amp switch gear. Lighting is primarily florescent and a portion has been upgraded to T8 tubes. The fire alarm system was replaced in 2009 with a new Mircom FX-2000. The Nurse Call system was replaced in 1996 with a Rauland system. The master clock system is no longer functioning and several wall clocks are out of service and removed from their original location. Overall the Electrical system is generally in good condition.

Mechanical Summary

The Athabasca Healthcare Centre is heated with hot water boilers. The air handling units have primary and secondary glycol heating coils and cooling coils. In addition the air units provide humidification by steam injection from a low pressure steam boiler. The facility has perimeter radiant heating, finned tube radiation and unit heaters in various locations. Cooling is provided by a centrifugal chiller and roof mount cooling tower. Ventilation from the air handling units is controlled by VAV terminals. Medical gas is provided by bulk liquid oxygen and vacuum is provided by the medical vacuum compressor. Emergency power is provided by the diesel powered generator. Domestic hot water is provided by a heat exchange system from the hot water boilers. The mechanical systems are generally in acceptable condition but are near the end of their service life.

S1 STRUCTURAL

A1010 Standard Foundations*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Concrete perimeter grade beams supported by concrete piles with structural concrete slab for main floor areas.

A1030 Slab on Grade* - Ambulance Bay

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

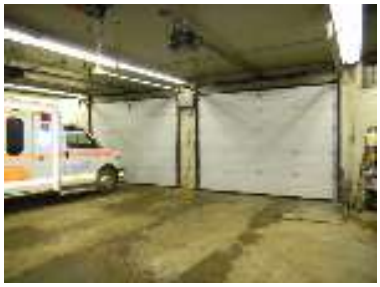
Description

Slab on grade for ambulance bay.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Water leakage (ask operator)	
Existence	No
Significant cracking	
Existence	Yes



Failure Replacement (classified as Failure Replacement)

Details	Values

Short Title	Replace Ambulance Garage Floor (144 sq m)
Cost	$46,848.00
Start Year	2012
Impact	Moderate
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Concrete floor is cracked and flaked. There is no drainage system (sump pit), water collects in various areas creating a slip hazard.

Recommendation

Replace ambulance garage floor and install sump pit and pump for drainage.

A1030 Slab on Grade* - Basement, Wings

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

Slab on Grade basement floor and the three wings.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Water leakage (ask operator)	
Existence	No
Significant cracking	
Existence	No

A2020 Basement Walls (& Crawl Space)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

Reinforced concrete walls on perimeter footings.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Water leakage (ask operator)	
Existence	No
Significant cracking	
Existence	No

B1010.01 Floor Structural Frame (Building Frame)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

Reinforced concrete slab over basement area, steel columns and girders for other portions of building.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Significant corrosion	
Existence	No
Cracking	
Existence	No
Significant deflection	
Existence	No

B1010.02 Structural Interior Walls Supporting Floors (or Roof)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Concrete block walls in ambulance bay and lower floor mechanical room.

B1010.03 Floor Decks, Slabs, and Toppings*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

Reinforced concrete structural slab over basement area, steel pans and joist roof construction, steel columns and girders for other portions of building.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Significant corrosion	
Existence	No
Significant cracking	
Existence	No
Significant deflection	
Existence	No

B1010.10 Floor Construction Firestopping*

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

Fire stopping consists of foam applications throughout.

ACL Level: ACL 2 - Check List

Element Condition: 3 - Marginal

Assessment Criteria	Existence
Unsealed penetrations	
Existence	Yes

Code Repair (classified as Code Repair)

Details	Values
Short Title	Provide Mechanical Room fire stopping (2 sq m)
Cost	$2,500.00
Start Year	2011
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Pipes and conduits in mechanical room have excessive spaces where they penetrate a fire seperation.

Recommendation

Firestop all penetration areas.

B1020.01 Roof Structural Frame*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Steel joist and steel pans supporting roof surface.

B1020.02 Structural Interior Walls Supporting Roofs*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Concrete block walls in basement and ambulance bay.

B1020.03 Roof Decks, Slabs, and Sheathing*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Steel pans on steel joist.

B1020.06 Roof Construction Fireproofing*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1985
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Sprayed fiber fire proofing on steel joist and steel pan roof deck.

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

All exterior facades consist of brick cladding.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Corrosion or rot	
Existence	No
Inconsistent surface finish	
Existence	No
Visible deformation/ loose sections	
Existence	No
Significant staining	
Existence	No

B2010.01.06.03 Metal Siding**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	40
ACL	ACL 2 - Check List

Narratives

Description

Metal siding utilized on penthouse exterior walls.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Corrosion or rot	
Existence	No
Inconsistent surface finish	
Existence	No
Visible deformation/ loose sections	
Existence	No
Significant staining	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Penthouse Metal Siding [1240m²]
Cost	$88,382.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

B2010.01.09 Expansion Control: Ext. Wall*

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Architectural caulk utilized at brick facade.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Renew Exterior Brick Caulking (510 lm)
Cost	$16,708.00
Start Year	2012
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Architectural caulk expansion joints cracked.

Recommendation

Replace all expansion joint caulk.

B2010.01.11 Joint Sealers (caulking): Ext. Wall**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	20
ACL	ACL 1

Narratives

Description

Caulking at window and door frames at junction of exterior cladding.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Renew Exterior Window & Door Caulking [800 lm]
Cost	$26,207.00
Start Year	2012

Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Caulk brittle at junction of window and door frames with exterior cladding.

Recommendation

Replace failed caulking.

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

Polyethylene vapour barriers and batt insulation.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Evidence of significant air leakage	
Existence	No

B2010.05 Parapets*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

300mm high parapet walls utilized at perimeter of roof areas.

B2010.06 Exterior Louvers, Grilles, and Screens*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Prefinished louvers and grilles utilized at mechanical intake vents.

B2020.01.01.02 Aluminum Windows (Glass & Frame)**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	40
ACL	ACL 1

Narratives

Description

Prefinished anodized aluminum window frames with sealed window units.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Aluminum Canopy Windows (36 sq m)
Cost	$156,401.00
Start Year	2012
Impact	Moderate
Probability	Imminent
Event Status	Not Approved

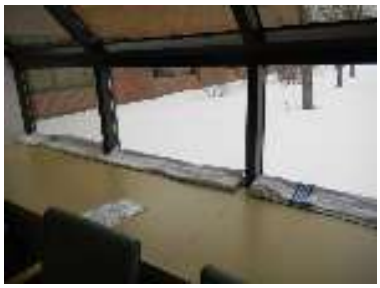
Narratives

Concern

Canopy windows have evidence of leaking. The window units are installed over a cantilever that has inadequate insulation and thermal barrier. During winter months the window units have extensive frost and occupants place blankets on the lower section to prevent cold transfer to the interior space. The cladding below one unit is open exposing the plywood.

Recommendation

Replace canopy window system and ensure adequate insulation below window unit.



Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Aluminum Windows (237m²/104 units)
Cost	$299,331.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

B2020.02 Storefronts: Windows**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	40
ACL	ACL 1

Narratives

Description

Store front aluminum windows utilized at front entry and staff entry.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Main Entry Store Fronts [15m²]

Cost	$20,309.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

B2020.03 Glazed Curtain Wall**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Glazed skylight canopy mounted in aluminum frames utilized over main entry.

Repair (classified as Repair)

Details	Values
Short Title	Re-Caulk Exterior Canopy (140 l. m.)
Cost	$6,960.00
Start Year	2012
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

The caulk joints are brittle and loose for skylight glazing at frames.

Recommendation

Replace caulk and seals at affected areas.

Repair

Details	Values
Short Title	Repair Roof Gutters & Downspouts (10 l m.)
Cost	$3,175.00
Start Year	2012
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

The water does not drain properly from the canopy roof gutters, causing water overflows and ice build-up, creating hazardous conditions at main entry.

Recommendation

Repair Roof Gutters and Drain Pipe. Clean adjacent masonry walls.

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
ACL	ACL 2 - Check List

Narratives

Description

Aluminum framed store front doors utilized at facility fire exits.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Closer not working	
Existence	No
Poor air seal	
Existence	No
Hardware in poor condition	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Store Front Doors (7)
Cost	$25,466.00
Start Year	2015
Impact	Unassigned

Probability	Unassigned
Event Status	Not Approved

B2030.01.06 Automatic Entrance Doors**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1990
Theoretical Design Life	30
ACL	ACL 1

Narratives

Description

Automatic sliding aluminum doors utilized at front entry and automatic swing open doors used in Emergency.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Automatic Entrance Doors (7)
Cost	$89,476.00
Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

B2030.02 Exterior Utility Doors**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	40
ACL	ACL 1

Narratives

Description

Steel utility doors used in storage rooms with exterior only access.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Exterior Utility Doors (6)
Cost	$7,276.00
Start Year	2024
Impact	Unassigned

Probability	Unassigned
Event Status	Not Approved

B2030.03 Large Exterior Special Doors (Overhead)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 2 - Check List

Narratives

Description

Four overhead prefinished insulated steel doors utilized in ambulance bay, one in loading dock and one at garage entry.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Closer not working	
Existence	No
Poor air seal	
Existence	Yes
Hardware in poor condition	
Existence	No

Repair (classified as Repair)

Details	Values
Short Title	Replace Weatherstrip (48 m)
Cost	$1,350.00
Start Year	2012
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Existing weatherstrip on 2 ambulance bay doors is cracked and/or missing.

Recommendation

Replace old weatherstrip with new.

B3010.01 Deck Vapour Retarder and Insulation*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Bituminous asphalt coating vapour barrier, and rigid insulation utilized for roof deck.

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)**

Details	Values
Condition Rating	2 - Poor
Year Installed	1984
Theoretical Design Life	25
ACL	ACL 2 - Check List

Narratives

Description

Bituminous built-up roofing utilized for all roof areas.

ACL Level: ACL 2 - Check List

Element Condition: 2 - Poor

Assessment Criteria	Existence
Problems with leakage (ask operator)	
Existence	Yes
Debris or insufficient gravel cover	
Existence	Yes
Bubbles / soft spots	
Existence	Yes
Evidence of significant ponding	
Existence	Yes

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Roofing Replacement (2600 sq m)
Cost	$760,000.00
Start Year	2011
Impact	Significant
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

Roofing has failed in several locations, several leaks throughout building.

Recommendation

Upgrade Main Chassis & Penthouse Roof as per consultant report.

Consequences of Deferral

Several leaks have been repaired due to membrane splitting. Consultants report recommends roof replacement due to age and condition.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Built-up Roofing (3400 sq m)
Cost	$1,700,000.00
Start Year	2012
Impact	Significant
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Roof membrane is original. Operators report several leaks in various locations throughout facility.

Recommendation

Replace roof membrane over the three wings with SBS Membrane.

B3020.02 Other Roofing Openings (Hatch, Vent, etc)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Plumbing, mechanical and ventilation duct openings.

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Non load bearing steel studs with gypsum painted board utilized for non load bearing partitions.

C1010.05 Interior Windows*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Interior glazing consisting of clear glass utilized in LTC Smoke Room, waiting room at main area and admitting desk.

C1010.07 Interior Partition Firestopping*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Gypsum board fire stopping utilized above steel stud walls at fire separations.

C1020.01 Interior Swinging Doors (& Hardware)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Solid core wood doors in steel frames utilized at offices and patient rooms.

C1020.03 Interior Fire Doors*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Hollow core steel and solid core wood doors with wired glass in steel frames, with panic hardware and magnetic hold open devices utilized at corridor fire separations.

C1020.05 Interior Large Doors*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Large wood swing doors utilized in O.R. and emergency area.

C1030.01 Visual Display Boards**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	20
ACL	ACL 1

Narratives

Description

Tack boards in offices and white board in conference room utilized.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Visual Display Boards (8)
Cost	$4,610.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

C1030.06 Handrails*

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Lacquer finished wood handrails used in corridors.

Repair (classified as Repair)

Details	Values
Short Title	Repair Handrail Surfaces (550 l. m.)
Cost	$65,000.00
Start Year	2012
Impact	Minor
Probability	Likely
Event Status	Not Approved

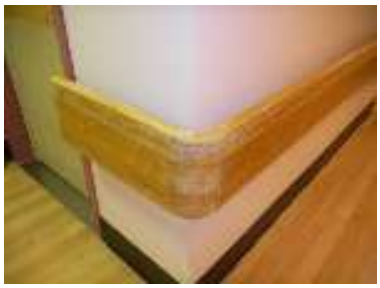
Narratives

Concern

Lacquered surface is worn and pealed. Wood surface is no longer sealed. Areas of railing have splitters which are a safety risk.

Recommendation

Sand and refinish lacquer surface.



C1030.08 Interior Identifying Devices*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Vinyl directional and identification signs mounted on walls and doors.

C1030.10 Lockers**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
ACL	ACL 1

Narratives

Description

Metal lockers utilized in staff change rooms.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Staff Lockers (150)
Cost	$100,500.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

C1030.12 Storage Shelving*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Storage shelving includes laminated wood product and several mobile stainless steel carts.

C1030.14 Toilet, Bath, and Laundry Accessories*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Paper towel, soap dispensers and grab bars utilized in public and patient room washrooms.

C2010 Stair Construction*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Cast in place concrete stairs to basement

C2020.05 Resilient Stair Finishes**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	20
ACL	ACL 1

Narratives

Description

Resilient stair treads and risers utilized.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Resilient Stair Finishes (50 sq m)
Cost	$6,045.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

C2020.08 Stair Railings and Balustrades*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Painted pipe rails at stairs utilized.

C3010.06 Tile Wall Finishes**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	40
ACL	ACL 1

Narratives

Description

Tile wall finishes used in tub rooms, patient room showers in Acute Care and staff showers.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Tile Wall Finish (180 sq m)
Cost	$52,698.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

C3010.11 Interior Wall Painting*

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Painted finishes for all walls.

Repair (classified as Repair)

Details	Values
Short Title	Repair and paint wall surfaces (6300 sq m floor space)
Cost	$85,000.00
Start Year	2012
Impact	Minor
Probability	Unlikely
Event Status	Not Approved

Narratives

Concern

The majority of the facility is original wall finish. Paint is worn and areas of the walls are damaged by normal service delivery.

Recommendation

Repaint wall surfaces.

C3020.01.01 Epoxy Concrete Floor Finishes*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Epoxy floor finishes in food services, CSR, lower floor corridor & laundry room areas.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Epoxy Floor (650 sq m)
Cost	$120,000.00
Start Year	2013
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

Narratives

Concern

Epoxy floor in Laundry and Food Services is worn and cracked. Surface is able to trap moisture resulting in IP&C concerns.

Recommendation

Overlay the epoxy floor with vinyl sheet flooring (650 sq m)

C3020.01.02 Painted Concrete Floor Finishes*

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Painted floor finishes in mechanical room, loading dock area and lower floor medical storage.

Repair (classified as Repair)

Details	Values
Short Title	Renew Mech. RoomFloor Paint (263 m²)
Cost	$19,300.00
Start Year	2012
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Painted floor finish worn and some areas of concrete flaked.

Recommendation

Repaint concrete floor areas.

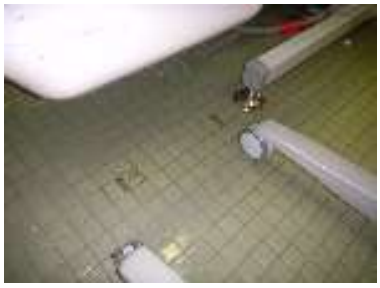
C3020.02 Tile Floor Finishes**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	50
ACL	ACL 1

Narratives

Description

Tile floor finish used in Acute Care and Long Term Care Tub Rooms.



Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Tile Flooring (45 sq m)
Cost	$13,928.00
Start Year	2012
Impact	Unassigned

Probability	Unassigned
Event Status	Not Approved

Narratives

Concern

Tile floor is cracked and some tiles missing. Tile is slippery when wet, therefore not a suitable application for tub room.

Recommendation

Remove and replace tile floor with vinyl safety floor.

C3020.07 Resilient Flooring** - 1984

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	20
ACL	ACL 1

Narratives

Description

Resilient flooring utilized for approximately 80% of the flooring in the building. Original Resilient floor remains in Acute Care, all Long Term Care Washrooms, a portion of the main chassi and the entire 3rd wing, currently used for office and medical clinics.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Resilient Flooring (3000 sq m)
Cost	$277,290.00
Start Year	2012
Impact	Moderate
Probability	Likely
Event Status	Not Approved

Narratives

Concern

The resilient flooring is worn and has a lot of open joints at seams. Concerns with containment of germs as cleaning is not very effective.

Recommendation

Replace resilient flooring, install cove bases.

C3020.07 Resilient Flooring** - 2000

Details	Values
Condition Rating	5 - Good
Year Installed	2000
Theoretical Design Life	20
ACL	ACL 1

Narratives

Description

Resilient Flooring replaced in portion of main chassi and all of Long Term Care wing (except resident washrooms in Long Term Care).

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Resilient Floor (3880 sq m)
Cost	$358,628.00
Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

C3020.08 Carpet Flooring**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	15
ACL	ACL 1

Narratives

Description

Carpet flooring utilized in offices, medical records and lower floor meeting room.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Carpeting (860 sq m)
Cost	$27,296.00
Start Year	2012
Impact	Moderate
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Carpet is worn and frayed in many areas.

Recommendation

Replace carpeted areas.

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	25
ACL	ACL 1

Narratives

Description

Suspended ceilings utilized throughout the building except for front entrance and lower floor storage areas.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Metric T-Bar Ceilings (7500 sq m)
Cost	$450,000.00
Start Year	2013
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

The tile surfaces in many areas are damaged or stained; also the grid is a metric dimension, fixtures are no longer available.
Refer to D5020.02.02.02 Interior Florescent Fixtures for lighting replacement costs.

Recommendation

Replace suspended Metric T-Bar ceilings throughout. Coordinate project work with the replacement fluorescent lighting systems

D1010.01.02 Hydraulic Passenger Elevators**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
ACL	ACL 1

Narratives

Description

Two hydraulic passenger elevators utilized. One elevator is a two stop the other is a three stop which services the penthouse mechanical level.

Program Functional Upgrade (classified as Program Functional Upgrade)

Details	Values
Short Title	Modify Penthouse Access Control (1 cab)
Cost	$4,500.00
Start Year	2011
Impact	Significant
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

Currently, the one elevator that provides access to the penthouse mechanical room is not restricted to employee access. Patients could mistakenly access the penthouse mechanical area without awareness of staff.

Recommendation

Modify control in elevator cab via key or card reader to limit access to penthouse level.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Refurbish Two Hydraulic Passenger Elevator
Cost	$197,000.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

S4 MECHANICAL

D2010.04 Sinks**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The building has a variety of stainless steel and porcelain sinks. There are floor mounted, wall hung and counter top service sinks.

Failure Replacement

Details	Values
Short Title	Replace Service Sinks (6)
Cost	$14,655.00
Start Year	2012
Impact	Minor
Probability	Likely
Event Status	Not Approved

Narratives

Concern

The service sinks are cracking, and overall not hygenic. Potential exists for leakage below sink surface through cracks.

Recommendation

Replace all the service sinks.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace sinks (25)
Cost	$41,400.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2010.05 Showers**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

Shower stalls are ceramic tile on the walls and floor.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Shower stalls (40)
Cost	$69,600.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2010.06 Bathtubs**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1990
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There are two tub rooms is the Acute Care wing, one is a hydro stretcher tub the other a domestic floor model. There is one tub room in the Long Term Care Wing. The tub is a hydrotherapy tub.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Hydrotherapy Tubs (2)
Cost	$60,000.00

Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2010.08 Drinking Fountains/Coolers**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The drinking fountains have been permanently disconnected.

D2010.09 Other Plumbing Fixtures* - Emergency Shower

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There is a Haws emergency shower in the laboratory.

D2010.10 Washroom Fixtures (WC, Lav, Urnl)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The water closets are wall hung, flush valve type and the lavatories are both counter mounted and wall hung. There is 2 urinals.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace leaking Water Closet
Cost	$2,800.00
Start Year	2012
Impact	Significant
Probability	Imminent
Event Status	Not Approved

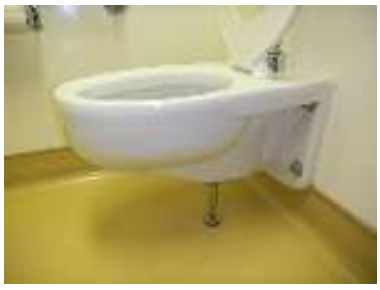
Narratives

Concern

One water closet is inadequately supported. Temporary support was installed at bottom of closet to the floor.

Recommendation

Replace the water closet and correct wall mount bracket application.



Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace 68 Water Closets, 2 Urinals and 84 Lavatories

Cost	$266,648.00
Start Year	2019
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2020.01.01 Pipes and Tubes: Domestic Water*

Details	Values
Condition Rating	2 - Poor
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The municipal supply consists of one 6" domestic galvanized line and one 6" galvanized fire supply line. The supply distribution consists of various sizes down to 1/2" copper though out the facility. The domestic hot water return line was replaced with Kytec in 2002.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace domestic water liines (500 l m)
Cost	$750,000.00
Start Year	2012
Impact	Significant
Probability	Likely
Event Status	Not Approved

Narratives

Concern

The domestic water supply lines show signs of leakage. Facility staff have documented repairs and replaced sections proving that the copper has corroded/eroded. Majority of existing pipe is extremely thin.

Recommendation

Replace all galvanized and copper domestic supply lines

Consequences of Deferral

Catastrophic failure. Leaks will occur and isolation will be difficult. Impact on service delivery is inevitable.

Failure Replacement (classified as Failure Replacement)

Details	Values

Short Title	Replace Domestic Water Recirculation Line [200m]
Cost	$130,000.00
Start Year	2012
Impact	Moderate
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

The domestic water recirculation lines have been replaced once with Kytec. Kytec has proven to be unsuccessful in many facilities and has failed over a short period of time.

Recommendation

Replace the recirculation lines.

Consequences of Deferral

There will be leaks and loss of domestic hot water.

D2020.01.02 Valves: Domestic Water**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	40
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There are shut off valves varied in size from 6" to 1" on the water service and located in various locations through out the building.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Domestic Water Shut-off Valves (30)
Cost	$75,000.00
Start Year	2012
Impact	Moderate
Probability	Likely
Event Status	Not Approved

Narratives

Concern

The original valves do not provide positive isolation.

Recommendation

Replace the domestic isolation valves.

D2020.01.03 Piping Specialties (Backflow Preventers)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	20
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

There is two sets of 4" backflow preventors in the domestic water supply and one set in the Fire Sprinkler supply system.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Missing on main water feed to building (if required by local authorities)	
Existence	No
Missing at heating and cooling system feed	
Existence	No
Missing at fire system connection	
Existence	No
Missing at equipment or other system connections	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Replace the Backflow Preventors (3)
Cost	$18,468.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2020.02.03 Water Storage Tanks** - 60 degree

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1994
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The 60 degree domestic hot water storage tank is steel wall with concrete refractory.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace 60 degree hot water storage tank (1)
Cost	$27,000.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2020.02.03 Water Storage Tanks** - 82 degree

Details	Values
Condition Rating	4 - Acceptable
Year Installed	2002
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The domestic 82 degree hot water storage tank is steel wall concrete lined.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace 82 Degree Domestic Hot Water Storage Tank (1)
Cost	$27,000.00

Start Year	2032
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2020.02.04 Domestic Water Conditioning Equipment**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	2000
Theoretical Design Life	20
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The facility has a duplex USF-Watergroup water softener for domestic hot water.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Domestic Water Conditioning Equipment (1 duplex system)
Cost	$6,500.00
Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2020.03 Water Supply Insulation: Domestic*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The domestic water pipes are insulated.

D2030.01 Waste and Vent Piping*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The waste and vent piping is cast iron and PVC.

D2030.02.04 Floor Drains*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There are floor drains throughout the building in service areas and there are funnel floor drains in the mechanical room.

D2040.01 Rain Water Drainage Piping Systems*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The water is drained to the town of Athabasca's storm drainage system.

D2040.02.04 Roof Drains*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The roof drains are cast iron dome type

D2090.10 Nitrous Oxide Gas Systems**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The building has medical nitrous oxide system for the Operating Room.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Medical Nitrous Gas System (1 manifold control)
Cost	$4,800.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2090.11 Oxygen Gas Systems**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1990
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The facility has an exterior liquid bulk oxygen storage system that provides oxygen to patient areas throughout the facility.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Oxygen Manifold Control System and Outlets (100)
Cost	$180,000.00
Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D2090.13 Vacuum Systems (Medical and Lab)**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The facility has a medical vacuum system provided by medical vacuum compressors.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Medical Vacuum System (50 Outlets & 2 Compressor)
Cost	$155,000.00

Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

Narratives

Concern

Vacuum pumps are original and past life expectancy. Cooling system for compressor is from a recycled water storage tank. High risk of contamination for service personnel.

Recommendation

Replace vacuum compressors and medical vacuum outlets.

D2090.16 Medical Air System*

Details	Values
Condition Rating	2 - Poor
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The facility has shut down the medical air compressor system. Medical air is provided by portable pump when required or oxygen is used. No plans for replacement as per medical team.

D3010.01 Oil Supply Systems (Fuel, Diesel)*

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There is a 100 gallon day fuel tank in the emergency generator room and a 500 gallon fuel storage tank outside adjacent the garage door.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Day Storage Fuel Tank (100

	gallon)
Cost	$3,500.00
Start Year	2012
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

Narratives

Concern

The day tank has corrosion in the interior causing contamination of the fuel. A fuel cleaning contractor cleared the contamination but will likely continue to cause contamination issues in the future.

Recommendation

Replace Day Storage Tank (100 gallon).

D3010.02.01.04 Distribution Piping (Natural Gas)

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	60
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There is natural gas supplied to the mechanical room equipment, roof, kitchen and laundry room. The gas meter and regulator is on the exterior of the building behind the main chassis adjacent the 3rd wing.

D3020.01.01 Heating Boilers & Accessories: Steam**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

There is a Cleaver Brooks model M4S-3000 (ID #B4) steam boiler that provides humidification to the building and a Bryan High Pressure steam boiler that provides steam to the CSR department (ID #B5).

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Dirty or corroded	
Existence	No
Unreliable (ask operator)	
Existence	No
Insufficient capacity (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Cleaver-Brooks Humidification Boiler (1) & Bryan HP Steam Boiler (1)
Cost	$700,000.00
Start Year	2019
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3020.02.01 Heating Boilers and Accessories: H.W.** - 1984

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

Two original Cleaver Brooks Model M4W-6000 still in service. Site equipment numbers B2 & B3.

ACL Level: ACL 2 - Check List

Element Condition: 3 - Marginal

Assessment Criteria	Existence
Dirty or corroded	
Existence	Yes
Unreliable (ask operator)	
Existence	Yes
Insufficient capacity (ask operator)	
Existence	Yes

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Heating Boiler Replacement (2)
Cost	$1,100,000.00
Start Year	2011
Impact	Significant
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Existing heating boilers (2) past life expectancy and in poor condition.

Recommendation

Replace Boiler B2 & B3

D3020.02.01 Heating Boilers and Accessories: H.W.** - 2000

Details	Values
Condition Rating	5 - Good
Year Installed	2000
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The hot water heating boiler (B1) is a Cleaver Brooks model MSW-6000.

ACL Level: ACL 2 - Check List

Element Condition: 5 - Good

Assessment Criteria	Existence
Dirty or corroded	
Existence	No
Unreliable (ask operator)	
Existence	No
Insufficient capacity (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Cleaver-Brooks Heating Boiler (1)
Cost	$550,000.00
Start Year	2035
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The combustion air is supplied at the ceiling from a separate air handling unit.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Signs of back draft	
Existence	No
Combustion air not provided	
Existence	No
Penetrations or gaps	
Existence	No
Dirty or corroded	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Chimney & Combustion Ducting (12 m)
Cost	$8,628.00
Start Year	2019
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3030.02 Centrifugal Water Chillers**

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	25
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

Trane Centrifugal Chiller is original. Model CVHE-0450, R11 refrigerant.

ACL Level: ACL 2 - Check List

Element Condition: 3 - Marginal

Assessment Criteria	Existence
Refrigerant type unacceptable	
Existence	Yes
Dirty or corroded or damaged	
Existence	No
Unreliable (ask operator)	
Existence	No
Insufficient capacity (ask operator)	
Existence	No

Code Upgrade (classified as Code Upgrade)

Details	Values
Short Title	Chiller Replacement
Cost	$900,000.00
Start Year	2012
Impact	Significant
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

All equipment using R11 refrigerant must be removed from service by 2015.

Recommendation

Replace original chiller

D3030.05 Cooling Towers**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	2002
Theoretical Design Life	25
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The cooling tower is located on the roof of the chassis adjacent the penthouse mechanical room.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Inside of unit dirty or corroded	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Baltimore Cooling Tower
Cost	$250,000.00
Start Year	2027
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3040.01.01 Air Handling Units: Air Distribution**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The air handling units are located in the penthouse. Three units consist of supply and return fans. The fourth unit is a supply fan only used for boiler room combustion air supply.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Occupants dissatisfied with ventilation (ask operator)	
Existence	No
Inside of unit and coils dirty or corroded	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Air Handling Units (4)
Cost	$1,200,000.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3040.01.03 Air Cleaning Devices: Air Distribution*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The air handlers have filter sections consisting of primary, secondary and final filters.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Filters dirty, not changed as required	
Existence	No
Inappropriate filtration provided in air handling units	
Existence	No

D3040.01.04 Ducts: Air Distribution*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The ductwork is galvanized sheet metal.

D3040.01.06 Air Terminal Units: Air Distribution (VAV/CV Box)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The ventilation system has variable air volume boxes.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operators and controls unsatisfactorily (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace 130 VAV Boxes
Cost	$152,685.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There are square ceiling diffusers and linear grilles.

D3040.03.01 Hot Water Distribution Systems**

Details	Values
Condition Rating	2 - Poor
Year Installed	1984
Theoretical Design Life	40
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The hot water distribution system is galvanized steel pipe and copper. The grooved piping is leaking in several areas, specifically the boiler room.

ACL Level: ACL 2 - Check List

Element Condition: 2 - Poor

Assessment Criteria	Existence
Leaks or corrosion (ask operator)	
Existence	Yes

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Grooved Piping, Gasket Fittings and Valves (8700 sq m & 8 pumps)
Cost	$1,200,000.00
Start Year	2012
Impact	Significant
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

Pipe joints are leaking through out mechanical room.

Recommendation

Replace Grooved Piping/Gasket Fittings and Valves on Heating System.

D3040.03.02 Chilled Water Distribution Systems**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	40
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The chilled water distribution is piped from the chiller to cooling coils in the air handling units and from the chiller to the cooling tower.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Leaks or corrosion (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Chilled Water Distribution Systems(8,700 sq m & 3 pumps)
Cost	$475,000.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3040.04.01 Fans: Exhaust**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

Several roof top exhaust fans (15) used for sanitary and general exhaust of building. Size range from 1 HP to 10 HP.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Exhaust Fans (15)
Cost	$139,287.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3040.04.03 Ducts: Exhaust*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The exhaust ducts are galvanized sheet metal.

D3040.04.05 Air Outlets and Inlets: Exhaust*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The exhaust air grilles are eggcrate type.

D3040.05 Heat Exchangers** - Domestic Water

Details	Values
Condition Rating	4 - Acceptable
Year Installed	2002
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

One 60 degree and one 82 degree hot water heat exchangers used to provide domestic hot water to facility.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Domestic Water Heat Exchange (2)
Cost	$32,520.00
Start Year	2032
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3040.05 Heat Exchangers** - Glycol

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There is a hot water to glycol heat exchanger providing glycol for ventilation heating.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Heat Exchanger (1)
Cost	$150,000.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

There are three Trane rooftop units. Unit 6A is a 10,000 CFM, 15 HP supply, 5890 CFM, 2 HP return. Unit 2B is a 6550 CFM, 7.5 HP supply and 2532 CFM, 1 HP return. Unit 3A is a 6550 CFM, 7.5 HP supply and 3623 CFM, 1 HP return.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Inappropriate filtration	
Existence	No
Dirty or corroded	
Existence	No
Unreliable (ask operator)	
Existence	No
Insufficient capacity (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Haakon Air Units (3)
Cost	$388,311.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3050.03 Humidifiers**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	25
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The air handling units have humidification sections that are supplied by a steam boiler.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace 6 Humidifier Sections
Cost	$76,086.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3050.05.02 Fan Coil Units**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There are 9 fan coil units in the facility.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Entrance Fan Coils (9)
Cost	$53,298.00
Start Year	2015

Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3050.05.03 Finned Tube Radiation**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	40
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There is finned tube radiation in cabinets along exterior walls in some sections of the facility.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Finned Tube Radiation (81.5 m)
Cost	$40,831.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3050.05.06 Unit Heaters**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There are two unit heaters in the ambulance bay and one in the boiler room.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Unit Heaters (3)
Cost	$24,792.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3050.05.08 Radiant Heating (Ceiling & Floor)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There are perimeter radiant panels in patient/resident rooms and various other locations.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Ceiling Radiant Panels (271 m)
Cost	$133,738.00
Start Year	2019
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D3060.02.03 Pneumatic and Electric Controls*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The pneumatic system is connected to the Building System Controls.

D3060.02.05 Building Systems Controls (BMCS, EMCS)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1992
Theoretical Design Life	20
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The building has a BMCS with the computer in the maintenance office.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Parts and service unavailable	
Existence	No
Insufficient control provided (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Facility BMCS (8700 sq m)
Cost	$198,099.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned

Event Status	Not Approved

D4010 Sprinklers: Fire Protection*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The building has a water based sprinkler system supplied by municipal pressure from a 6" dedicated water main without a fire pump. The system has 6 separate sprinkler zones.

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

Class ABC fire extinguishers are located through out the facility.

D4090.04 Dry Chemical Fire Extinguishing Systems (Kitchen Hood)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	40
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There is a Pyro Chem extinguishing system for the kitchen range hood.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Pyro Chem Kitchen Extinguishing System
Cost	$12,354.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior)**

Details	Values
Condition Rating	5 - Good
Year Installed	1984
Theoretical Design Life	40
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

There are approximately 18 step down transformers located throughout the facility. The transformers range in size from 15kVA to 225kVA. All transformers appear to be in good condition.

ACL Level: ACL 2 - Check List

Element Condition: 5 - Good

Assessment Criteria	Existence
Excessive heating (ask operator)	
Existence	No
Significant damage to enclosure	
Existence	No
Cleaning/maintenance not performed for sizes greater that 150 KVA (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Secondary Transfomers (18)
Cost	$288,426.00
Start Year	2024

Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5010.03 Main Electrical Switchboards (Main Distribution)**

Details	Values
Condition Rating	5 - Good
Year Installed	1984
Theoretical Design Life	40
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The main distribution is a 2500 amp, 347/600 Volt, 3 phase, 4 wire, board manufactured by Sylvania. The main distribution is located in the basement electrical room 0141. There are approximately 3 spaces in the main board for future additional electrical requirements. There is also an 1000 amp, 347/600 Volt, 3 phase, 4 wire, board manufactured by Sylvania that is connected to the back-up diesel generator and is also location in electrical room 0141. The emergency distribution has 2 spaces for future. The emergency transfer switch is an ASCO model 962.

ACL Level: ACL 2 - Check List

Element Condition: 5 - Good

Assessment Criteria	Existence
Breaker tripping (ask operator)	
Existence	No
Cleaning/maintenance by a testing firm not performed (ask operator)	
Existence	No
Lack of space for addition of breakers	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace ASCO Transfer Switch (1)
Cost	$95,000.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Main Electrical Switchboards (2500 A & 1000A)
Cost	$120,000.00
Start Year	2024
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)**

Details	Values
Condition Rating	5 - Good
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The are four central distribution panels (CDPs) located in various electrical rooms throughout the building. Two of the CDPs are connected to emergency power and two to regular power. The CDPs are manufactured by Sylvania and all panels have some space for future electrical requirements.

ACL Level: ACL 2 - Check List

Element Condition: 5 - Good

Assessment Criteria	Existence
Lack space for addition of breakers	
Existence	No
Missing filler plates	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Electrical Branch Circuit Panelboards (4)
Cost	$61,968.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned

Event Status	Not Approved

D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

Throughout the facility there are approximately 33 panelboards. Generally the panels have spaces for future loads. There are four motor control centers in the building. All MCCs are manufactured by Square D. Two of the MCCs are located in the boiler room and two are located in the penthouse mechanical room.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace MCC's (4) & Electrical Panels (33)
Cost	$293,324.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5010.07.02 Motor Starters and Accessories**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The majority of the larger motors are controlled by the motor control centers but there are some motors that are connected to starters and switches.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Tripping of overloads (ask operator)	
Existence	No
Pilot lights not operational	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Motor Starters & Switches (15)
Cost	$18,000.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5010.07.03 Variable Frequency Drives** - 1984

Details	Values
Condition Rating	1 - Critical
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

VFD for AS2 & RF2 in Penthouse Mechanical room.

ACL Level: ACL 2 - Check List

Element Condition: 1 - Critical

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	Yes

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace VFD for AS2 & RF2 (30 HP & 3 HP)
Cost	$19,908.00
Start Year	2011
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

Narratives

Concern

VFD units failed in March 2006. System bypassed since.

Recommendation

Replace 30 HP and 3 HP VFD.

D5010.07.03 Variable Frequency Drives** - 1990

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1990
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

VFD units in Air System #1 and for the cooling tower fan motor.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace VFD units (3)
Cost	$29,862.00
Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5020.01 Electrical Branch Wiring*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The majority of the branch circuit wiring is contained in conduit. Bx is used in some areas for lighting drops and where flexible connections are required due to vibration.

D5020.02.01 Lighting Accessories: Interior (Lighting Controls)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

Most rooms have line voltage switching but low voltage switching is used in some general areas.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	No

D5020.02.02.01 Interior Incandescent Fixtures*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

There is currently limited incandescent lighting in various locations.

D5020.02.02.02 Interior Fluorescent Fixtures** - T12

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The fluorescent lighting in the majority of the facility is T12 technology and the fixtures are metric. There is a combination of 300mm x 1200mm (2-lamp) or 300mm x 300mm (U tube). Most service rooms have 2-lamp fluorescent strip fixtures. The main entry to the building is lit by a fluorescent surface fixture mounted within the ceiling slat system. The lighting levels in the building are quite good. The lighting is operational and in good condition but T12 ballast will be phased out over the next few years. Lighting replacement will also affect the T-bar ceiling installation as the ceiling tiles are metric, and metric fixtures are no longer available to the Canadian market although retrofits to the new T5 are available.

ACL Level: ACL 2 - Check List

Element Condition: 3 - Marginal

Assessment Criteria	Existence
Significant blackening of lamp ends	
Existence	No
Inappropriate relamping strategy	
Existence	No

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Metric Fluorescent Fixtures (6000m2)
Cost	$523,740.00
Start Year	2012
Impact	Moderate
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Metric fluorescent tubes are no longer manufactured or available in Canada.

Recommendation

Replace fluorescent metric T-12 fixtures with retrofit T5.

D5020.02.02.02 Interior Fluorescent Fixtures** - T8

Details	Values
Condition Rating	5 - Good
Year Installed	2000
Theoretical Design Life	30
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The fluorescent fixtures have been upgraded in the Auxiliary and Emergency areas to T8 technology.

ACL Level: ACL 2 - Check List

Element Condition: 5 - Good

Assessment Criteria	Existence
Significant blackening of lamp ends	
Existence	No
Inappropriate relamping strategy	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Fluorescent Fixtures (80)
Cost	$20,800.00
Start Year	2030
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5020.02.03.01 Emergency Lighting Built-in*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

There are a series of panels throughout the building with red labels that are fed from the back-up diesel generator. Based on the panel directories there are lights throughout the entire building that are fed from the emergency generator. Based upon the panel directories it would appear that a good majority of the corridor lighting and some room lighting is powered by the back-up generator.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Yearly audits not performed (ask operator)	
Existence	No

D5020.02.03.02 Emergency Lighting Battery Packs**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1995
Theoretical Design Life	20
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

There is one emergency battery light pack in the main electrical room and one in the emergency generator room.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Insufficient capacity (ask operator)	
Existence	No
Unreliable (ask operator)	
Existence	No
Dirty or corroded	
Existence	No
Yearly audits not performed	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Emergency Battery Light Packs (2)
Cost	$2,542.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5020.02.03.03 Exit Signs*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1990
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The exit signs have been upgraded to LED.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	No

D5020.02.05 Special Purpose Lighting*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	2000
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

A ceiling mounted exam light is installed in Room 403

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

Exterior H.P. Sodium fixtures used in parking lots and walkways. 13 - 150 Watt in parking lots and 10 - 75 watt globe style in walkways.

D5020.03.02 Lighting Accessories: Exterior (Lighting Controls)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The exterior building and site lighting is controlled by a photocell.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Photcell and/or time clock not operational	
Existence	No

D5030.01 Detection and Fire Alarm**

Details	Values
Condition Rating	5 - Good
Year Installed	2009
Theoretical Design Life	25
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The original fire alarm system was completely replaced (control panel and devices) in 2009 with a Mircom FX-2000. The fire alarm system is a completely addressable unit. The fire alarm control panel is located in telephone room 0149 in the basement. The annunciator panel has a LCD display as well as a LED panel with zone indication. The are annunciators panels located throughout the building. Adjacent to the annunciator panel at the main entrance is a map showing the entire building and fire alarm zones. Annunciation of the fire alarm is done via horn/strobe combination units and coverage appears sufficient.

ACL Level: ACL 2 - Check List

Element Condition: 5 - Good

Assessment Criteria	Existence
Trouble or ground lights lit on main panel	
Existence	No
Yearly audit not performed	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Mircom Fire Alarm System (8700 sq m)
Cost	$261,957.00
Start Year	2034
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5030.02.01 Door Answering*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1995
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

During locked/secure hours, clients can activate a door answering system that is connected to the Nurse Call system.

D5030.02.03 Security Access**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1995
Theoretical Design Life	25
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

Card reader system in place to provide access for staff members after regular hours at 4 main doors (front, ambulance, lower staff and ER).

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Card Reader Access (4 doors)
Cost	$17,000.00
Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5030.03 Clock and Program Systems*

Details	Values
Condition Rating	2 - Poor
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The Master Clock system is a Simplex.

ACL Level: ACL 2 - Check List

Element Condition: 2 - Poor

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	Yes

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Clock System (master & 35 clocks)
Cost	$35,000.00
Start Year	2011
Impact	Significant
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

The clock controller does not currently work and several wall clocks are removed. Clocks have failed and no replacement available.

Recommendation

Replace Master Clock system and wall clocks.

Consequences of Deferral

Appropriate patient care requires the ability to record time of events with accuracy. This isn't easily achieved or accurate at this site.

D5030.04.01 Telephone Systems*

Details	Values
Condition Rating	3 - Marginal
Year Installed	1984
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The main telephone system for the building is plagued with many issues and the system is past life expectancy. Parts are no longer available and the facility has had many problems with system failures. A new system is anticipated during the comming year.

Failure Replacement (classified as Failure Replacement)

Details	Values
Short Title	Replace Telephone System Equipment (250 sets)
Cost	$62,500.00
Start Year	2011
Impact	Significant
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

The facility manager had mentioned at the time of inspection that the telephone equipment frequently goes down. The system should be replaced as telephone communication is extremely important for any facility.

Recommendation

Replace the existing telephone system.

Consequences of Deferral

Failure of the telephone system could possibly put public safety into question if the facility cannot be reached or cannot make phone calls out.

D5030.04.03 Call Systems**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1996
Theoretical Design Life	25
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The nurse call system was fully replaced in 1996 with a Rauland Nurse Call system. The main panel is located in electrical room 1151. Hospital rooms and long term resident suites are equipment with push button nurse call devices and washrooms are equipped with the rip cord and push button stations. Each room has a nurse call light located above the door to indicate the room the call was placed.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Nurse Call System (350 stations)
Cost	$93,450.00
Start Year	2021
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5030.04.04 Data Systems*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1995
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The data cabling in the building is in conduit or suspended above the ceiling and is a mix of category 5e and category 6.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	No

D5030.05 Public Address and Music Systems**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	20
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The public address system is interconnected to the telephone system for paging control.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Operational issues (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Intercom equipment and amplifier (8730 sq m)
Cost	$27,400.00

Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

D5030.06 Television Systems*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1985
Theoretical Design Life	0
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 1

Narratives

Description

The Acute Care has 10" low voltage televisions on swing arms for patient use.

D5090.02 Packaged Engine Generator Systems (Emergency Power System)**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1985
Theoretical Design Life	35
Capacity / Size	
Capacity / Size Unit	N/A
ACL	ACL 2 - Check List

Narratives

Description

The back-up generator is located in the basement in diesel generator room 0140. It is manufactured by Waterous and is a 500KW - 600Volt diesel generator.

ACL Level: ACL 2 - Check List

Element Condition: 4 - Acceptable

Assessment Criteria	Existence
Regular load tests not completed	
Existence	No
Insufficient capacity (ask operator)	
Existence	No

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values

Short Title	Replace Waterous back-up Generator (1)
Cost	$324,805.00
Start Year	2020
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.06 Commercial Laundry and Dry Cleaning Equipment*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Commercial washers and dryers utilized.

E1020.07 Laboratory Equipment*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

A full range of laboratory equipment present.

E1020.08 Medical Equipment*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

A full range of medical and diagnostic equipment utilized.

E1090.02 Solid Waste Handling Equipment

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	25
ACL	ACL 1

Narratives

Description

Large utility bins utilized for waste storage.

E1090.03 Food Service Equipment*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Commercial kitchen, with stoves, ovens, dishwasher, walk-in freezer and refrigerators. All equipment is original except the dishwasher which was replaced in 2010.
Steam tables and other food service equipment are utilized.

E1090.04 Residential Equipment*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Refrigerators utilized in lab and refreshment centers, stove utilized in continuing care area.

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Athletic equipment utilized in physiotherapy & rehab areas.

E2010.02 Fixed Casework**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	35
ACL	ACL 1

Narratives

Description

Fixed casework including upper and lower cabinetry and counter tops utilized in several departments of the facility including patient bathrooms and public washrooms, fixed reception desks at reception area and nurses stations.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Fixed Casework (51 l m)
Cost	$168,295.00
Start Year	2019
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

E2010.03.01 Blinds**

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	30
ACL	ACL 1

Narratives

Description

Horizontal blinds utilized for exterior windows, vertical blinds used in interior office windows.

Lifecycle Replacement (classified as Lifecycle Replacement)

Details	Values
Short Title	Replace Window Blinds (135m²/65 blinds)
Cost	$28,275.00
Start Year	2015
Impact	Unassigned
Probability	Unassigned
Event Status	Not Approved

F1040.05 Liquid and Gas Storage Tanks*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Storage tanks contained in special rooms designed for that purpose in restricted areas.

S8 SPECIAL ASSESSMENT

K2030 Program Layout

Details	Values
Condition Rating	4 - Acceptable
Year Installed	2000
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Renovation occured in main chassi in 2000 which included the relocation of ER, reconfiguration of admitting and medical records.

Program Functional Upgrade (classified as Program Functional Upgrade)

Details	Values
Short Title	Construct Certified Heliport
Cost	$650,000.00
Start Year	2012
Impact	Significant
Probability	Imminent
Event Status	Not Approved

Narratives

Concern

The facility currently uses a grass area east of the Healthcare Centre to land the air ambulance helicopter. This was acceptable prior to the development of commercial buildings adjacent the Healthcare Centre. Now the landing area is considered to be in a "built-up" area therefore requiring a Certified Heliport to continue safe and responsible operations for air ambulance operations.

Recommendation

Construct a heliport as per current regulations.

Code Upgrade (classified as Code Upgrade)

Details	Values
Short Title	CSR Renovation (150 sq m)
Cost	$350,000.00

Start Year	2012
Impact	Significant
Probability	Likely
Event Status	Not Approved

Narratives

Concern

Central Sterilization & Processing area does not meet the current CSA code requirements as per Healthcare Centre Manager.

Recommendation

Renovate CSR work space and ventilation systems to meet current CSA code for reprocessing and sterilization of Healthcare Equipment.

K4010.01 Barrier Free Route: Parking to Entrance*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Handicapped parking stalls located convenient to main entries.

K4010.02 Barrier Free Entrances*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1990
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Entrances are equipped with automatic doors.

K4010.03 Barrier Free Interior Circulation*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Two Elevators in facility and handrails provided in corridors. Corridors have sufficient width.

K4010.04 Barrier Free Washrooms*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Four public washrooms, 2 at the front entrance and 2 in the lab waiting area have grab bars.

K4030.01 Asbestos*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	0
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

An asbestos study is on record and no ACM on site.

K4030.02 PCBs*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

None observed or reported by staff

K4030.06 Radioactive Compounds*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Radioactive compounds used in diagnostic equipment in restricted areas.

K4030.07 Ozone Depleting Substances (CFC's, HCFC's, Halon)*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

No evidence of leaking for refrigeration and air conditioning components. The Centrifugal Chiller which operates on R11 is scheduled for replacement in 2012.

K4030.08 Biohazardous Materials*

Details	Values
Condition Rating	4 - Acceptable
Year Installed	1984
Theoretical Design Life	0
ACL	ACL 1

Narratives

Description

Biohazardous material stored in special containers in restricted areas.